

silicon nitride.

9. (New) The method of claim 8, wherein the seed initiation layer is applied to the insulation region prior to application of the amorphous or polycrystalline layer.

10. (New) The method of claim 9, wherein the amorphous or polycrystalline layer is applied by precipitation.

11. (New) A method of fabricating a semiconductor component, comprising the steps of:

providing a support substrate;

providing an insulating region on the substrate;

placing a seed initiation layer of silicon nitride on the insulating region;

depositing an amorphous or polycrystalline silicon germanium layer on the seed initiation layer.

Remarks

In response to the Official Action and for the Examiner's convenience, Applicants are furnishing under cover hereof a fresh specification incorporating all the changes of their preliminary amendment of 20 March 2001 and those set forth hereinabove. No new matter has been introduced into Applicants' original disclosure in consequence of these changes.

Having regard to the Examiner's allegation that no drawings have been received, the Examiner's attention is respectfully drawn to Applicants' English translation of their International Application PCT/DE99/03069 to which copies of the drawings as filed had been appended. However, leave is sought to defer the

Application No.: 09/787,661

submission of formal drawings until after a notice of allowance has been issued.

In response to the rejection of claims 1 - 3 on grounds of alleged anticipation by Kikuo, Japanese Kokai Publication No. 62-36865, Applicants have withdrawn those claims and have replaced them by a set of eight (8) new claims the two independent ones of which are restricted to the deposition of an amorphous or polycrystalline *silicon germanium* (emphasis added) layer on the seed initiation layer.

The silicon germanium renders Applicants' invention patentably distinct from the teachings of Kikuo which are restricted to the precipitation of a layer of silicon onto silicon nitride.

The patentable distinction resides in the completely different properties and behavior of polycrystalline silicon germanium from those of polycrystalline silicon. While the deposition of silicon onto silicon nitride, under normal circumstance, poses no problems, the difficulties inherent in the deposition of silicon germanium on silicon nitride are notorious. Conventionally, these difficulties have been sought to be overcome by depositing a thin silicon layer on the oxide prior to depositing the polycrystalline silicon germanium layer; for the assumption has always prevailed among persons skilled in the art that to treat silicon germanium in the same manner as silicon would invariably lead to failure.

The method proposed by the instant invention does, however, accomplish what has hitherto been thought not to be possible. In accordance with the invention a uniform and homogeneous layer of amorphous or polycrystalline silicon germanium may be deposited on silicon nitride without resorting to the prior deposition of a thin silicon layer, as would have been expected on the basis of what has heretofore been taught by the prior art.

In respect of copending application 09/787,571, the Examiner's attention is respectfully directed to the fact that while its claims refer to "suitable deposition

Application No.: 09/787,661

conditions" to deposit the amorphous or monocrystal layer on the insulator zone in greater thickness than the epitaxial layer in the active transistor zone, by application of "a very low temperature", no mention is made of the use of silicon nitride to bring about the superior monocrystalline or amorphous silicon germanium layer. In view of this significant difference and, in the event, until the fate of that co-pending application has been settled, a terminal disclaimer in the instant application would not appear to be indicated or, indeed, required.

It is believed that as hereby amended, the instant application is in condition for allowance which is courteously solicited.

Respectfully submitted,



Karl Hormann
Registration No.: 26,470

Area Code (617)-491-8867
Enclosure